



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/771,631	01/30/2001	Mehdi Hamadou	Q62250	1269

7590 03/24/2004  
SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC  
2100 PENNSYLVANIA AVENUE, N.W.  
WASHINGTON, DC 20037-3213

EXAMINER

HOLMES, MICHAEL B

ART UNIT PAPER NUMBER

2121

DATE MAILED: 03/24/2004

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Sk

## Office Action Summary

Application No.

09/771,631

Applicant(s)

HAMADOU ET AL.

Examiner

Michael B. Holmes

Art Unit

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |  |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |



---

**UNITED STATES PATENT AND TRADEMARK OFFICE**

---

P.O. Box 1450, Alexandria, Virginia 22313-1450 – [www.USPTO.GOV](http://www.USPTO.GOV)

## Examiner's Detailed Office Action

### Response to Amendment

1. This Office Action is responsive to communication received on **December 29, 2003**.  
Amendment "B" under 37 CFR § 1.111. Reconsideration and allowance of the present application **09/771,631**, filed **January 30, 2001**, is respectfully requested by applicant. All such supporting documentation has been placed in applicant's file.
2. Applicant's arguments filed December 29, 2003,, paper #12, have been fully considered, but they are *not* persuasive.
3. **Claims 1-14** stand rejected under **Title 35 USC § 102 (b)** as being anticipated by *Saucedo et al.* (USPN 5,754,738).
4. In the remarks applicant argues that the cited reference fails to disclose:
  - I) "... a software model of a real device, wherein the software model includes virtual components that are linked to each other in correspondence to relationships of or within the real device, ... "

Art Unit: 2121

I) Examiner contends, "... a software model of a real device, wherein the software model includes virtual components that are linked to each other in correspondence to relationships of or within the real device, ..." is taught by *Saucedo et al.* (USPN 5,754,738), [(col. 3, line 50 to col. 4, line 23)*"Initially, attention is directed to FIG. 35 which shows a schematic representation of the general interrelationships between the human user and the computerized prototyping system of the invention, including the various components and associated interfaces. Stored in a computer RAM of the prototyping system are graphic software code, design browsers code, constraint solver program code, printer and plotter drivers, optimization algorithm code and knowledge base system code. Further, a computer hard drive contains the requisite database. Input devices include a keyboard and mouse, and a printer and plotter may be provided in addition to the user interface screen. As shown in FIG. 1, the virtual system design environment of the present computerized prototyping system includes four major stages of operations: (a) Downselection of candidate designs; (b) Conceptual level design optimization; (c) Virtual design and prototyping; and (d) Virtual analysis of the designed systems (FIG. 1). The candidate design downselection and higher level design optimization stages are a part of the conceptual design process, while the virtual prototyping and virtual analysis stages correspond to the detailed design stages. In the conceptual design stages, exact mathematical representation of the model to be optimized need not be known. The user can build a model using the decision tree principles, with the interrelationships between the variables defined as fuzzy variables, such as mediums, high, very high etc. The conceptual design stage of VSDE is handled by a module called Optimization and Decision Support System (ODSS). ODSS allows the downselection of alternate designs and their high level design optimization. The detailed design for the subsystems*

Art Unit: 2121

*is done in the virtual prototyping stage, where solutions are estimated for a set of equations describing the subsystems. As shown in FIG. 2, in VSDE, these operations are a part of the Design Environment (DE) module. The designs always need not be performed inside the VSDE, they can be designed outside and ported into from commercial CAD systems. In the case of functional design tasks, the subsystem functionalities can be incorporated into VSDE either through mathematical representations or through models.”]*

5. Claims 15 & 16 are rejected under **Title 35 USC § 102 (b)** as being anticipated by *Saucedo et al.* (USPN 5,754,738) as set forth in paper #10..

### Examiners Summary

6. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

7. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 2121

## Correspondence Information

8. Any inquiries concerning this communication or earlier communications from the examiner should be directed to **Michael B. Holmes** who may be reached via telephone at **(703) 308-6280**. The examiner can normally be reached Monday through Friday between 8:00 a.m. and 5:00 p.m. eastern standard time.

If you need to send the Examiner, a facsimile transmission regarding After Final issues, please send it to **(703) 746-7238**. If you need to send an Official facsimile transmission, please send it to **(703) 746-7239**. If you would like to send a Non-Official (draft) facsimile transmission the fax is **(703) 746-7240**. If attempts to reach the examiner by telephone are unsuccessful, the **Examiner's Supervisor, Anil Khatri**, may be reached at **(703) 305-0282**.

Any response to this office action should be mailed too:

**Director of Patents and Trademarks Washington, D.C. 20231**. Hand-delivered responses should be delivered to the Receptionist, located on the fourth floor of **Crystal Park II, 2121 Crystal Drive Arlington, Virginia**.

***Michael B. Holmes***

Patent Examiner

Artificial Intelligence

Art Unit 2121

United States Department of Commerce  
Patent & Trademark Office

*Ramesh Patel*  
**RAMESH PATEL**  
**PRIMARY EXAMINER** 3/19/09  
*For Anil Khatri*